COMPUTER TECHNOLOGY IN NONDESTRUCTIVE TESTING

ANNOTATION
TO THE WORKING PROGRAM OF DISCIPLINE

Specialty 7-06-0716-03 "Instrumentation Engineering"
Specialization (profile): Information systems and technologies of nondestructive testing and diagnostics"

	Form of higher education	
	Full-time (daytime)	**Distance learning**
Course	**2**	**2**
Semester	**3**	**4**
Lectures, hours	**34**	**8**
Practical training, hours	**34**	**8**
Exam, semester	**3**	**4**
Auditorium hours in the academic discipline	**68**	**16**
Independent work, hours	**232**	**284**
Total hours in the academic discipline / credit units	**300/9**	

1 Purpose of the training discipline

The purpose of the discipline is to familiarize students with the use of the theory of pattern recognition for the processing of data obtained in nondestructive testing.

2 Planned learning outcomes of the discipline

The objectives of the discipline are to obtain in-depth knowledge of conducting statistical analysis of qualitative characteristics of various phenomena and processes.

As a result of mastering the discipline, a master student should

know:

- the main approaches used for image recognition in nondestructive testing;
- methods and algorithms of pattern recognition;
- methods and algorithms of self-learning systems;

be able to:

- perform model classification evaluation;
- evaluate the features of models;
- apply the obtained data to recognize the data obtained as a result of nondestructive testing;
- use software to analyze the information obtained in the result of nondestructive testing;

have the skill:

- skills of practical implementation of methods and algorithms of pattern recognition for the processing of data obtained in nondestructive testing.

3 Requirements for mastering the academic discipline

Mastering of this academic discipline shall ensure the formation of the following competencies:

Names of competencies to be formed
Effectively use computer technologies in the development of methods in the development of methods and means of nondestructive testing

4 Requirements for the form of current and interim certification

Current control is determined by the defense of laboratory works and current attestation. Current certification is the defense of practical works. Intermediate certification is an exam. The form of carrying out - oral and written.